

07 C 7237

EXHIBIT C

**JUDGE KOCORAS
MAGISTRATE JUDGE KEYS**

AURORA

PROFESSIONAL GRADE

Crosscut Paper Shredder

Déchiqueteuse à coupe croisée

Máquina destructora de documentos de corte transversal



AS1019CS

MODEL NO. • MODÈLE No • MODELO NO.

The AS1019CS SERIES can shred up to 10 sheets of 20 lb. bond paper in widths up to 8.5"
ONE FOLDED SHEET OF PAPER EQUATES TO 2 SHEETS OF PAPER

Les appareils de la SÉRIE AS1019CS peuvent déchiqueter jusqu'à 10 feuilles de papier bond
de 75g/m² (20 lb) largeur n'excede pas 21,59 cm (8,5 po)
UNE FEUILLE DE PAPIER PLIÉE ÉQUIVAUT À DEUX FEUILLES

La serie AS1019CS puede destruir hasta 10 hojas de 20 libras de papel de cartas con un ancho de 8.5"
UNA HOJA DE PAPEL DOBLADA EQUIVALE A 2 HOJAS DE PAPEL

1-800-327-8508 / INFO@AURORACORP.COM

U.S.A. ONLY • ETATS-UNIS SEULEMENT • LOS ESTADOS UNIDOS SÓLO

1-310-793-5650

INTERNATIONAL • INTERNATIONAL • INTERNACIONAL

Operating Instructions

Installation
 Operation
 Caution
 Trouble Shooting Aurora Paper Shredders
 Maintenance
 Limited Warranty

Sheet Capacity	10 sheets of 20lb. bond paper
Credit Card & CD Capacity	1 at a time
Paper Shred Size	5/32" x 1 9/20" pieces 0.4 cm x 3.7 cm pieces
Voltage	120V-60Hz 4.3A

Manuel de fonctionnement

Installation
 Fonctionnement
 Avertissement
 Dépannage des déchiqueteuses
à papier Aurora
 Entretien
 Garantie limitée

Capacité de passage à la fois	10 feuilles de papier bond de 75g/m2 (20lb.)
Capacité de CD et les cartes de crédit	les introduire un par un
Dimensions des déchets	en morceaux de 5/32" x 1 9/20" en morceaux de 0.4 cm x 3.7 cm
Tension	120V-60Hz 4.3A

Instrucciones para operar

Instalaciones
 Operación
 Advertencia
 Solucionar Problemas de la Máquina
Trituradora de Documentos Aurora
 Mantenimiento
 Garantía Limitada

Capacidad de destrucción la vez	10 hojas de papel de cartes de 20 libras
Capacidad de CDs y tarjetas de crédito	introdúzcalos en la ranura uno por uno
Tamaño de corte	en pedazos de 5/32" x 1 9/20" en pedazos de 0.4 cm x 3.7 cm
Voltaje	120V-60Hz 4.3A

AURORA

Please read these operating instructions before using the unit.

Customer Service: 1-800-327-8508 or INFO@AURORACORP.COM (U.S.A. ONLY)

Avant d'utiliser cet appareil, Veuillez lire toutes les instructions.

Service à la clientèle: 1-800-327-8508 OU INFO@AURORACORP.COM (ÉTATS-UNIS SEULEMENT)

Antes de operar esta unidad, por favor lea todas las instrucciones.

Servicio al Consumidor: 1-800-327-8508 O INFO@AURORACORP.COM (LOS ESTADOS UNIDOS SÓLO)

INSTALLATION:

Attach all 4 caster wheels to the bottom of the wastebasket.

Mount the shredder securely to the rim of the waste basket. (FIGURE 1)

Connect the power cord to any standard 120 volt AC outlet.

Note: Crosscut shredders includes a built in safety mechanism that requires the shredder to be correctly mounted on the supplied wastebasket. Lining the wastebasket with a plastic bag will interfere and may keep the shredder from functioning.

Caution: Crosscut shredders have very sharp, exposed blades on the underside.
Use care when mounting the shredder on the wastebasket.

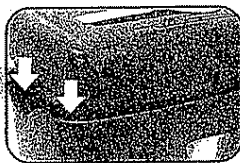


FIGURE 1

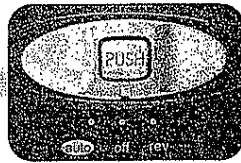


FIGURE 2

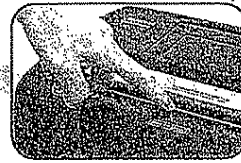


FIGURE 3

OPERATION:

Using the switch located on the unit, select one of the following settings by sliding the switch either left or right. As a safety feature, press and hold the center button on the switch while sliding to change modes from Off to Auto or Rev. The switch will not slide unless the button is pressed. (FIGURE 2)

Rev: In the unlikely event of a paper jam, the reverse setting can be used to help clear the cutters of paper that has not passed through. Never attempt to clear a jam by using the reverse function until you have emptied the wastebasket. (FIGURE 2)

Auto: The forward setting can also be used to help clear the cutters in the event of a paper jam. This allows to manually activate the shredder into cutting mode. (FIGURE 2)

Off: This setting turns off all features of the shredder. For safety reasons, we recommend that you leave the shredder in the Off position whenever the shredder is unattended or not in use.

Note: Never continuously run this shredder for more than 10 minutes.
In the event that the shredder is run continuously for too long and the motor overheats, a thermal overload switch will automatically shut the power off. If this happens, move the switch to the off position for 10 minutes or more before continuing.

TouchGuard™ Safety Protection Technology is featured on this paper shredder. (FIGURE 3)

When powered on, the paper shredder automatically stops shredding when the metallic strip located in the feed slot is touched. This only occurs when in contact with the human touch or pets and is not affected by regular inanimate objects. Such objects may be clothing, keys, pens or pencils, tools, hair, etc.

Note: If user's hand(s) are covered, the wearing of gloves, affects the functionality of the safety feature.

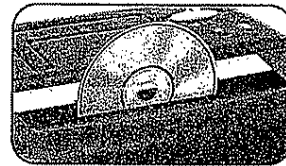
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OPERATION continued:

Never shred plastic (except credit cards and only by inserting them, one at a time, through the special credit card slot), continuous forms, anything with adhesive including labels and envelopes, newsprint, or any hard materials. While this shredder will shred staples and small paperclips, it is recommended that you remove them whenever possible in order to extend the life of your shredder.

Features a CD/DVD destroyer:

- 1) Hold the CD/DVD by the edge and feed one at a time, releasing when shredding begins.
- 2) Shredder will stop when the entire disc has been destroyed.

**CAUTION:**

Do not hold CD/DVD with finger through the center ring while feeding into the shredder. Serious injury may occur.
Never feed more than one credit card or CD/DVD at a time.

LED Status indicators:

Power On
(green light)



**Paper
Overload/Overheat**
(red light)



Shredder Misaligned
(red light)

CAUTION:

- **KEEP OUT OF REACH OF CHILDREN AND PETS.**
- DO NOT PLACE FINGERS TOO CLOSE TO THE FEED SLOT AS SERIOUS INJURY MAY OCCUR.
- AVOID GETTING JEWELRY, HAIR OR LOOSE CLOTHING NEAR THE FEED SLOT.
- RISK OF FIRE. NEVER dispose of flammable chemicals or materials that have come into contact with flammable chemicals (for example, nail polish, acetone, gasoline) in the shredder basket.
- Always turn the shredder off and unplug the power cord from the AC outlet before cleaning it, moving it, or emptying the waste basket.
- Never place the shredder near water or any heat source.
- Keep waste basket emptied so that the shredder output is not impeded.
- Never use any petroleum based or flammable oils or lubricants in or around the machine as some oils can combust causing serious injury. Never spray any aerosol based products in or around shredder.

CAUTION continued:

- Never shred envelopes, labels or anything with glue or any sticky substance as this will lead to paper jams.
- Do not use the shredder if the power cord is damaged in any way.
- Do not attempt to service this product yourself as doing so may expose you to sharp cutting blades and/or electricity and will void the manufacturers warranty.
- Never let the wastebasket become full. This will lead to shredded material being pulled back up into the shredder and cause jams.
- Never try to clean/clear the shredder blade.

TROUBLE SHOOTING FOR AURORA PAPER SHREDDERS:

The shredder does not work at all.

- a) Make sure the shredder is plugged into an outlet which is in good working order.
- b) Shredders with pull-out wastebaskets features a safety power cut off upon bin removal. Make sure the pull-out wastebasket is properly set back into place.
- c) In the event that the shredder is run continuously for too long and the motor overheats, a thermal overload switch will automatically shut the power off. If this happens, move the switch to the off position for 30 minutes or more before continuing.
- d) TouchGuard™ Safety Protection Technology is featured on this paper shredder.
When powered on, the paper shredder automatically stops shredding when the metallic strip located in the feed slot is touched. This only occurs when in contact with the human touch or pets and is not affected by regular inanimate objects. Such objects may be clothing, keys, pens or pencils, tools, hair, etc.
Note: If user's hand(s) are covered, the wearing of gloves, affects the functionality of the safety feature.

The shredder only runs in "Rev" and "Auto" mode.

- a) The shredder will not start running until paper, CD/DVD, or credit card is inserted into the appropriate feed slot. It is normal for the motor to run for a moment after the shredder is powered on but it should stop until paper is inserted. The trigger that activates the shredder is located directly in the center of the feed slot. If the paper you are inserting is narrow, it may not be hitting the switch. It is possible that the trigger, which activates the shredder, has become blocked with paper. Insert an index card, directly in the center of the feed slot, and apply force. This will usually clear any paper blocking the switch and force the switch closed.

MAINTENANCE:

We recommend you oil your shredder once a month with vegetable or cooking oil (nothing petroleum based). Drizzle some oil on a few pieces of paper and feed those pages through the shredder.

LIMITED WARRANTY:

Aurora warrants the cutting cylinders of the machine against defects of workmanship and material for a period of **5 years** from the original purchase date to the original consumer. Aurora warrants all other parts of the machine against defects of workmanship and material for a period of **1 year** from the original purchase date to the original consumer.

Should there be a defect or malfunction of this product, Aurora will replace the product free of charge. Customer is responsible for all shipping charges to return the defective product to Aurora. A copy of the proof of purchase showing original purchase date is required. This warranty is void if the product has been subject to damage, unreasonable use, improper service, or other causes not arising from defects in original material or workmanship. This warranty is void if factory seal is broken or removed from the product. This warranty does not include adjustments, parts or repairs required by circumstances beyond the control of Aurora.

There are no expressed warranties other than those stated herein.

Any expressed or implied warranties, including but not limited to merchantability and fitness for a particular purpose are limited to the above warranty period. Aurora shall not be liable for any incidental or consequential cost, expenses or damages resulting from any failure defect or malfunction of this product.

Some states do not allow the exclusion of limitations of implied warranties or consequential damages, therefore, the above limitations may not apply to you.

This warranty grants you specific legal rights, and you may also have other rights that vary from state to state.

Please contact us with any questions.

Aurora Corp. of America
3500 Challenger Street, Torrance, California 90503 USA
1-800-327-8508 U.S.A. ONLY • 310-793-5650 INTERNATIONAL

INSTALLATION :

Fixer les 4 roulettes à la base du panier à rebuts
 Installer solidement la déchiqueteuse sur le bord du panier à rebuts. (FIGURE 1)
 Brancher le cordon d'alimentation sur une prise standard de 120 volts.

Attention : Les déchiqueteuses à coupe croisée est équipée d'un mécanisme de sécurité qui exige que l'appareil soit correctement monté sur le panier à rebuts fourni. Doubler le panier à rebuts d'un sac en plastique sera gênant et empêchera la déchiqueteuse de fonctionner.

Attention : Les déchiqueteuses à coupe croisée sont équipées, en dessous, de lames exposées très coupantes. Soyez prudent en montant la déchiqueteuse sur la panier à rebuts.

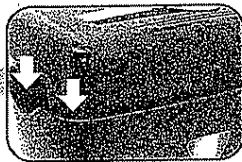


FIGURE 1

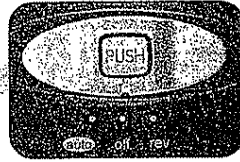


FIGURE 2



FIGURE 3

FONCTIONNEMENT :

À l'aide du commutateur situé sur l'appareil, choisir l'un des réglages suivants en faisant glisser le commutateur soit à gauche soit à droite. Pour plus de sûreté, appuyer et maintenir le bouton central du commutateur quand vous le faites glisser pour changer de modes. Le commutateur ne glissera pas si le bouton n'est pas enfoncé. (FIGURE 2)

Rev : Dans le cas improbable d'un bouchage de papier, la marche arrière permet de libérer les couteaux du papier qui n'est pas passé. Ne jamais tenter d'effectuer un débouchage en utilisant la marche arrière sans avoir auparavant vidé le panier à rebuts. (FIGURE 2)

Auto : Dans le cas d'un bouchage de papier, le réglage en marche avant (Fw) peut être utilisé pour dégager les couteaux. Cela permet de mettre manuellement la déchiqueteuse en marche en mode de coupe. (FIGURE 2)

Off : Ce réglage interrompt toutes les fonctions de la déchiqueteuse. Pour des raisons de sécurité, nous vous recommandons de laisser la déchiqueteuse en position Off quand elle est sans surveillance ou n'est pas utilisée. (FIGURE 2)

Remarque : Ne jamais faire fonctionner cette déchiqueteuse sans interruption pendant plus de 10 minutes. Dans le cas où la déchiqueteuse fonctionne continuellement trop longtemps et que le moteur surchauffe, un commutateur de surcharge thermique la mettra hors tension automatiquement. Dans ce cas, mettre le commutateur à Off pendant 10 minutes ou plus avant de continuer.

Cette déchiqueteuse à papier dispose de la technologie de sécurité TouchGuard™. (FIGURE 3)
 Quand elle est en marche, la déchiqueteuse arrête automatiquement le déchiquetage lorsqu'on touche la bande métallique située dans la fente d'alimentation. Cela n'arrive que lorsque des personnes ou des animaux de compagnie y touchent. L'arrêt n'est pas activé par des objets inanimés. De tels objets peuvent être des vêtements, des clés, des crayons ou des stylos, des outils, des cheveux, etc.

Note: Le port des gants par l'utilisateur modifie la fonctionnalité du dispositif de sécurité.

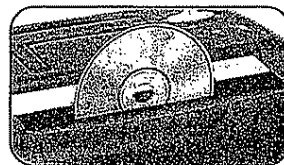
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FONCTIONNEMENT continue :

Ne jamais déchiqueter du plastique (sauf les cartes de crédits et seulement en les insérant une par une dans la fente spéciale à cet effet), des formulaires continus, quoi que ce soit avec de la colle y compris des étiquettes ou des enveloppes, des journaux ou tout matériau rigide. Bien que cette déchiqueteuse puisse déchiqueter les agrafes et les petits trombones, il est recommandé de les enlever quand cela est possible de façon à prolonger la durée de votre déchiqueteuse.

Présente un destructeur de CD/DVD :

- 1) Tenir les CD/DVD par le bord et les introduire un par un, en les lâchant quand le déchiquetage commence.
- 2) La déchiqueteuse s'arrêtera après la destruction totale du disque.



Attention : Ne pas tenir les CD/DVD avec un doigt dans le trou central en alimentant la déchiqueteuse. Cela pourrait causer des sérieuses blessures. Ne jamais déchiqueter plus d'une carte de crédit ou d'un CD/DVD à la fois.

DÉL d'état :

En marche
(lumière verte)



**Protection de surcharge
et surchauffe**
(lumière rouge)



Déchiqueteuse mal alignée
(lumière rouge)

AVERTISSEMENT :

- **GARDER L'APPAREIL HORS DE PORTÉE DES ENFANTS ET DES ANIMAUX DE COMPAGNIE.**
- NE PAS METTRE LES DOIGTS TROP PRÈS DE LA FENTE D'ALIMENTATION EN PAPIER CAR LE RISQUE DE SÉRIEUSES BLESSURES EST IMPORTANT.
- ÉVITER AUSSI D'APPROCHER DES BIJOUX, DES CHEVEUX OU DES VÊTEMENTS LÈGES DE LA FENTE D'ALIMENTATION.
- RISQUE D'INCENDIE. NE JAMAIS jeter les produits chimiques inflammables ou les matériaux qui sont entrés en contact avec des produits chimiques inflammables (par exemple, vernis à ongle, acétone, essence) dans le panier de la déchiqueteuse.
- Toujours mettre la déchiqueteuse hors tension et débrancher le cordon d'alimentation avant de la nettoyer, de la déplacer ou de vider le panier de rebuts.

AVERTISSEMENT continue :

- Ne jamais placer la déchiqueteuse près d'une source d'eau ou d'une source de chaleur
- Toujours vider le panier afin que les rebuts n'entravent pas l'évacuation de la déchiqueteuse.
- Ne jamais utiliser des huiles à base de pétrole ou inflammables ou des lubrifiants dans l'appareil ou à proximité, car certaines huiles peuvent s'enflammer et entraîner des blessures sérieuses. N'utiliser aucun produit aérosol dans ou à proximité de la déchiqueteuse
- Ne jamais déchiqueter des enveloppes, des étiquettes ou quoi que ce soit avec de la colle ou tout substance collante, cela entraînera un bourrage de papier.
- N'utiliser pas la déchiqueteuse si le cordon d'alimentation est endommagé de quelque façon que ce soit.
- Ne pas essayer de réparer cet appareil vous-même, car vous risquez de vous couper avec les couteaux et/ou de recevoir un choc électrique; cela annulera la garantie du fabricant.
- Ne jamais laisser plein le panier à rebuts. Cela aurait pour effet que le matériel déchiqueter soit attiré par la déchiqueteuse et entraîner des bourrages.
- Ne jamais essayer de nettoyer ou dégager la lame de la déchiqueteuse

DÉPANNAGE DES DÉCHIQUEUSES À PAPIER AURORA :

La déchiqueteuse ne fonctionne pas

- a) Assurez-vous que l'appareil est branché et que la prise sur laquelle il est branché est en bon état.
- b) Les déchiqueteuses équipées de panier amovible disposent d'un coupe-puissance sécuritaire quand on enlève le panier. Assurez-vous que le panier à rebuts amovible est bien remis en place.
- c) Dans le cas où la déchiqueteuse fonctionne continuellement trop longtemps et que le moteur surchauffe, un commutateur de surcharge thermique la mettra hors tension automatiquement. Dans ce cas, mettre le commutateur à Off pendant 30 minutes ou plus avant de continuer.
- d) Cette déchiqueteuse à papier dispose de la technologie de sécurité TouchGuard™. Quand elle est en marche, la déchiqueteuse arrête automatiquement le déchiquetage lorsqu'on touche la bande métallique située dans la fente d'alimentation. Cela n'arrive que lorsque des personnes ou des animaux de compagnie y touchent. L'arrêt n'est pas activé par des objets inanimés. De tels objets peuvent être des vêtements, des clés, des crayons ou des stylos, des outils, des cheveux, etc.

Note: Le port des gants par l'utilisateur modifie la fonctionnalité du dispositif de sécurité.

La déchiqueteuse fonctionne en mode "Rev", mais pas en mode "Auto".

- a) En mode "Auto", le moteur ne se mettra pas en marche avant que du papier soit inséré dans la fente d'alimentation. Placer l'appareil sur "Auto" et insérer le papier à déchiqueter. Il est normal que le moteur se mette en marche quelques instants après le réglage sur "Auto" mais il doit s'arrêter jusqu'à l'insertion de papier. Le déclencheur qui met en marche la déchiqueteuse en mode Auto est située immédiatement au centre de la fente. Si le papier que vous insérez est étroit, il est possible qu'il n'actionne pas l'interrupteur. Il est possible que le déclencheur qui met la déchiqueteuse en marche soit bloqué par du papier. Insérez une carte fiche directement au centre de la fente d'alimentation et poussez fort. Habituellement, cela dégagera tout papier bloquant l'interrupteur ou forcera l'interrupteur à se fermer.

ENTRETIEN :

Nous vous recommandons d'huiler votre déchiqueteuse une fois par mois avec de l'huile végétale ou de cuisson (rien à base de pétrole). Verser un peu d'huile sur quelques feuilles de papier et les passer dans la déchiqueteuse.

GARANTIE LIMITÉE :

Aurora garantit les cylindres de coupe de la machine contre les défauts de matériel et de main-d'œuvre pendant une période de **5 ans** à partir de la date d'achat du client initial. Aurora garantit toutes les autres pièces de la machine contre les défauts de matériel et de main-d'œuvre pendant une période d'**1 an** à partir de la date d'achat du client initial.

Si ce produit présente un défaut ou un mauvais fonctionnement, Aurora le remplacera gratuitement. Le client est responsable de tous les frais de port pour retourner le produit défectueux à Aurora. La garantie sera nulle en cas de dommages, d'usage déraisonnable, de réparation inappropriée du produit, ou d'autres causes ne dépendant pas de défauts de matériel ou de main-d'œuvre. Cette garantie est nulle si le sceau de l'usine a été brisé ou enlevé du produit. Cette garantie ne s'applique pas aux modifications, aux pièces et aux réparations nécessaires à la suite de circonstances hors du contrôle d'Aurora, y compris mais non limitées aux dégâts d'eau.

Il n'existe pas d'autres garanties expresses que celles énoncées ici.

Toutes les garanties expresses ou implicites, y compris, mais sans y être limité, celles concernant la qualité marchande et l'adaptation à un usage particulier, sont limitées à la période de garantie ci-dessus. Aurora décline toute responsabilité à l'égard de tout frais accessoire ou indirect, de dépenses ou dommages résultant d'un défaut ou d'un mauvais fonctionnement de ce produit.

Certains états n'autorisent pas l'exclusion des limites de garanties implicites ou de dommages conséquents; dans ce cas, les limites ci-dessus ne s'appliquent pas à vous.

Cette garantie vous accorde des droits légaux spécifiques et vous pouvez également avoir d'autres droits qui varient d'un état à l'autre.

Veuillez communiquer avec nous si vous avez des questions.

Aurora Corp. of America
3500 Challenger Street, Torrance, California 90503 USA
1-800-327-8508 ETATS-UNIS SEULEMENT • 310-793-5650 INTERNATIONAL

INSTALACIONES:

Fije las cuatro rueditas pivotantes a la parte inferior del canasto de los papeles.
Asegure la máquina destructora de documentos en la montura de la papelerera (FIGURA 1)
Conecte el cordón eléctrico en cualquier tomacorriente estándar de 120 voltios AC.

Nota: Las máquinas destructoras de documentos de corte transversal incluye un mecanismo interno de seguridad que requiere que la máquina destructora de documentos esté correctamente montada en la papelerera que se proporciona. Forrar la papelerera con una bolsa de plástico provocará una interferencia y es posible que la máquina destructora de documentos no funcione.

Precaución: Las máquinas destructoras de documentos de corte transversal tienen cuchillas muy filosas y expuestas en la parte inferior. Tenga mucho cuidado cuando esté montando la máquina destructora de documentos a la papelerera.

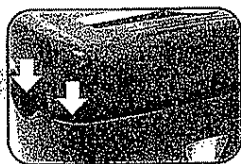


FIGURA 1

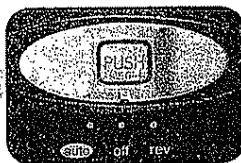


FIGURA 2

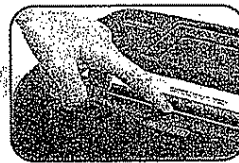


FIGURA 3

OPERACIÓN:

Utilizando el interruptor localizado en la unidad, seleccione una de las siguientes posiciones deslizando el interruptor ya sea hacia la izquierda o hacia la derecha. Como medida de seguridad, apriete y mantenga apretado el botón central del interruptor mientras lo mueve para cambiar de modalidad de estar apagado a automático o de reversa. El interruptor no deslizará a menos que se apriete el botón. (FIGURA 2)

Rev: En la remota posibilidad de que el papel se atore, la posición de reversa puede ser utilizada para desatorar las cortadoras del papel que no ha pasado a través de ellas. Nunca intente desatorar utilizando la función de reversa hasta que haya vaciado la papelerera. (FIGURA 2)

Auto: La regulación de marcha hacia adelante también se puede utilizar para ayudar a liberar las cuchillas en caso de que el papel se atasque. Esto permite hacer funcionar manualmente la máquina destructora de documentos en la modalidad de corte. (FIGURA 2)

Off: Esta posición apaga todas las características de la máquina destructora de documentos. Por razones de seguridad, recomendamos que deje la máquina destructora de documentos en la posición de apagada cuando la máquina destructora de documentos se deje desatendida o no se esté utilizando. (FIGURA 2)

Nota: No haga nunca funcionar de manera continua durante más de 10 minutos esta máquina destructora de documentos. En caso de que la máquina destructora de documentos se utilice continuamente por períodos largos y el motor se sobrecaliente, el interruptor termal de sobrecarga apagará la máquina automáticamente. Si esto sucede, coloque el interruptor en la posición de apagado por 10 minutos o más antes de continuar.

OPERACIÓN: continúe

Esta máquina destructora de documentos posee Tecnología de Seguridad TouchGuard™.
(página previa FIGURA 3)

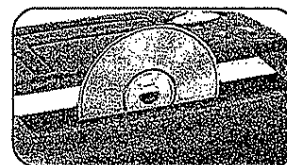
Cuando la máquina destructora de documentos está encendida, se detiene automáticamente si alguien toca la tira metálica ubicada en la ranura de alimentación. Esto sucede sólo cuando la tocan personas o animales domésticos y no cuando el contacto es con objetos inanimados. Tales objetos pueden ser, ropa, llaves, bolígrafos, herramientas, pelo, etc.

Nota: Si la(s) mano(s) del usuario está(n) cubiertas, el uso de guantes afecta el funcionamiento de la tecnología de seguridad.

Nunca destruya plástico (excepto tarjetas de crédito e inserte éstas solamente una a la vez a través de la ranura especial para tarjetas de crédito), formas continuas, nada que contenga adhesivos incluyendo etiquetas y sobres, periódicos, o materiales duros. Aún cuando esta máquina destructora de documentos tritura grapas y clips, se recomienda que se remuevan estos objetos cuando sea posible para alargar la vida de su máquina destructora de documentos.

Incluye un dispositivo que destruye CD/DVD:

- 1) Tome los CDs/DVDs por el borde e introdúzcalos en la ranura uno por uno, soltándolos cuando comiencen a ser destruidos.
- 2) La máquina destructora de documentos se detendrá cuando todo el CD/DVD haya sido destruido.



Precaución: No sostenga el CD/DVD introduciendo el dedo en el orificio central mientras lo suministra a la máquina destructora de documentos. Puede sufrir una lesión grave. No introduzca nunca en la ranura de alimentación más de una tarjeta de crédito o CD/DVD a la vez.

LED indicadores de estado:



Encendida
(luz verde)



**Protección para Sobrecarga /
Recalentamiento**
(luz roja)



**Máquina destructora
de documentos
desalineada (luz roja)**

ADVERTENCIA:

- **MANTENGA FUERA DEL ALCANCE DE NIÑOS Y MASCOTAS.**
- MANTENGA SUS DEDOS ALEJADOS DE LA RANURA DONDE SE INSERTA EL PAPEL YA QUE PUEDE OCASIONAR LESIONES GRAVES. TAMBIÉN EVITE JOYAS, CABELLOS O ROPA SUELTAS CERCA DE LA RANURA DE INSERCIÓN DEL PAPEL.
- PELIGRO DE INCENDIO. No eche NUNCA productos químicos inflamables, o materiales que han estado en contacto con productos químicos inflamables (por ejemplo: esmalte de uñas, acetona, gasolina) en el canasto de los papeles de la máquina destructora de documentos.
- Siempre apague y desconecte el cordón eléctrico del interruptor AC antes de limpiar o mover la máquina o vaciar la papeleras.
- Nunca coloque la máquina destructora de documentos cerca de agua o de alguna fuente de calor.
- Mantenga la papeleras vacías para que los dispositivos trituradores no se bloqueen.
- Nunca utilice petróleo o aceites inflamables o lubricantes dentro o alrededor de la máquina ya que algunos aceites pueden incendiar causando heridas graves. Nunca rocíe aerosoles de ningún tipo cerca de la máquina destructora de documentos.
- Nunca triture sobres, etiquetas o nada que tenga pegamento o alguna sustancia pegajosa ya que esto ocasionará que el papel se atore.
- No utilice la máquina destructora de documentos si el cordón eléctrico está dañado en alguna forma.
- No intente dar servicio a este producto usted mismo ya que se expone a las hojas filosas y/o a la electricidad. Asimismo invalidará la garantía del fabricante.
- Nunca deje la papeleras llena. Esto provocará que el material triturado sea jalado por la máquina trituradora de documentos y se atore.
- No trate nunca de limpiar/desatascar la cuchilla de la máquina destructora de documentos.

Solucionar Problemas de la Máquina Trituradora de Documentos Aurora:

La máquina trituradora de documentos no funciona

- a) Asegúrese que la unidad esté conectada y que el interruptor al que esté conectada esté en buenas condiciones.
- b) Las máquinas destructoras de documentos dotadas de canasto de los desechos poseen un sistema de seguridad que apaga la unidad cuando se saca el canasto. Asegúrese de que el canasto de los desechos removible ha sido vuelto a colocar correctamente en su lugar.
- c) En caso de que la máquina destructora de documentos se utilice continuamente por períodos largos y el motor se sobrecaliente, el interruptor termal de sobrecarga apagará la máquina automáticamente. Si esto sucede, coloque el interruptor en la posición de apagado por 30 minutos o más antes de continuar.
- d) Esta máquina destructora de documentos posee Tecnología de Seguridad TouchGuard™. Cuando la máquina destructora de documentos está encendida, se detiene automáticamente si alguien toca la tira metálica ubicada en la ranura de alimentación. Esto sucede sólo cuando la tocan personas o animales domésticos y no cuando el contacto es con objetos inanimados. Tales objetos pueden ser, ropa, llaves, bolígrafos, herramientas, pelo, etc. Nota: Si la(s) mano(s) del usuario está(n) cubiertas, el uso de guantes afecta el funcionamiento de la tecnología de seguridad.

Solucionar Problemas de la Máquina Trifuradora de Documentos Aurora:

La máquina destructora de documentos sólo funciona en las modalidades "Rev" y "Auto".

- a) La máquina destructora de documentos no empezará a funcionar hasta que se introduzca una hoja de papel, CD/DVD, o tarjeta de crédito en la ranura de alimentación apropiada. Es normal que el motor funcione por un tiempo corto después que se ha encendido la máquina, pero se detendrá eventualmente hasta el momento en que se introduzca una hoja de papel. El dispositivo que activa la máquina está ubicado exactamente al centro de la ranura de alimentación. Si el papel que usted está introduciendo es angosto, puede que no entre en contacto con el interruptor. Es posible que el dispositivo que activa la máquina haya quedado obstruido por el papel. Meta con fuerza una tarjeta para archivos directamente en el centro de la ranura de alimentación. Normalmente, esto eliminará cualquier papel que esté obstruyendo el interruptor o manteniéndolo cerrado.

MANTENIMIENTO:

Le recomendamos que lubrique su máquina destructora de documentos una vez al mes con aceite vegetal o aceite para cocinar (nada que sea con base de petróleo). Rocíe un poco de aceite sobre unos pocos trozos de papel y haga pasar esas páginas por la máquina destructora de documentos.

GARANTÍA LIMITADA:

Aurora garantiza los cilindros cortantes de la máquina contra defectos en la fabricación y en los materiales por un período de **5 años** a partir de la fecha original de compra por parte del consumidor original. Aurora garantiza todas las demás piezas de la máquina contra defectos en la fabricación y en los materiales por un período de **1 año** a partir de la fecha original de compra por parte del consumidor original.

En caso de defecto o mal funcionamiento de este producto, Aurora sustituirá el producto gratuitamente. El cliente es responsable por todos los gastos de envío que correspondan a la devolución del producto defectuoso a Aurora. Esta garantía es nula si el producto ha sido dañado o utilizado de manera equivocada, ha recibido mantenimiento indebido, u otras causas que no hayan surgido de defectos en el material o la fabricación originales. Esta garantía es nula si el sello de fábrica es roto o se saca del producto. Esta garantía no incluye ajustes, partes o reparaciones requeridas por circunstancias mas allá del control de Aurora, incluyendo pero no limitado a maltrato de escape.

No se proporcional garantías expresas más que las que están aquí establecidas.

Cualesquiera garantías escritas o implícitas, incluyendo pero sin limitarse a la comercialización y capacidad para servir un propósito particular, se limitan al período de garantía mencionado anteriormente. Aurora no será responsable por ninguno de los costos, gastos o daños accesorios o consecuentes que resulten de cualquier falla, defecto o mal funcionamiento de este producto.

Algunos estados no permiten la exclusion de limitaciones de garantías implícitas o daños consecuentes, por lo que la limitación arriba mencionada puede no aplicar a usted.

Esta garantía le brinda derechos legales específicos y usted puede también tener otros derechos que varín de Estado a Estado.

Sírvase ponerse en contacto con nosotros si desea hacer alguna pregunta.

Corporación Aurora de América
3500 Challenger Street, Torrance, California 90503 USA
1-800-327-8508 LOS ESTADOS UNIDOS SÓLO • 310-793-5650 INTERNACIONAL

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3500 Challenger Street Torrance, CA 90503 USA

TBH010907

EXHIBIT D


Pillsbury
Winthrop
Shaw
Pittman LLP

1650 Tysons Boulevard
McLean, VA 22102-4859

Tel 703.770.7900
Fax 703.770.7901
www.pillsburylaw.com

January 5, 2007

Bryan P. Collins
Phone: 703.770.7538
bryan.collins@pillsburylaw.com

VIA CERTIFIED MAIL

Mr. Kevin Chen
President
Aurora Corp. of America
3500 Challenger Street
Torrance, California 90503

Re: Infringement of Fellowes' Patent Rights
Our Ref.: 082135-0000042

Dear Mr. Chen:

Our firm represents Fellowes, Inc. ("Fellowes"). We enclose a copy of Fellowes' U.S. Patent No. 7,040,559 ("the '559 patent"), which issued on May 9, 2006.

We have reviewed your company's AS1219CD shredder and determined that it infringes the '559 patent. In particular, we regard the "Three Mode Safety Switch" advertised prominently on the packaging as giving rise to the infringement.

Fellowes also has a pending continuation application based on the '559 patent. That application is U.S. Patent Application Publication No. 2006-0157601 A1, a copy of which is enclosed. The claims published in that application, which we expect to be allowed, also cover your company's shredder.

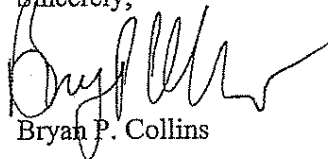
Additionally, Fellowes has counterpart applications pending in Europe, Japan, China, Australia, and Canada.

Fellowes' intellectual property is important to its business and it takes protection of that intellectual property seriously. Fellowes would like to reach an amicable resolution to this situation, but cannot allow its patent rights to be misused without proper compensation. We demand that your company either accept a royalty bearing license or cease and desist all further manufacture and sale of the infringing products.

Mr. Kevin Chen
January 5, 2007
Page 2

We would like your response within 10 days of this letter, or Fellowes will proceed with whatever measures it deems necessary to protect its rights.

Sincerely,

A handwritten signature in black ink, appearing to read "Bryan P. Collins", with a stylized flourish at the end.

Bryan P. Collins

BPC/smrn/zfa

Enclosures

SENDER: COMPLETE THIS SECTION		COMPLETE THIS SECTION ON DELIVERY	
<ul style="list-style-type: none">■ Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.■ Print your name and address on the reverse so that we can return the card to you.■ Attach this card to the back of the mailpiece, or on the front if space permits.		A. Signature X <i>Shirley Pao</i> <input type="checkbox"/> Agent <input type="checkbox"/> Addressee	
1. Article Addressed to: Mr. Kevin Chen President Aurora Corp. of America 3500 Challenger Street Torrance, CA 90503		B. Received by (Printed Name) <i>S Pao</i>	C. Date of Delivery <i>1-9-07</i>
2. Article Number: (Transfer from service label)		D. Is delivery address different from item 1? <input type="checkbox"/> Yes If YES, enter delivery address below: <input type="checkbox"/> No	
3. Service Type <input checked="" type="checkbox"/> Certified Mail <input type="checkbox"/> Express Mail <input type="checkbox"/> Registered <input checked="" type="checkbox"/> Return Receipt for Merchandise <input type="checkbox"/> Insured Mail <input type="checkbox"/> C.O.D.		4. Restricted Delivery? (Extra Fee) <input type="checkbox"/> Yes	
PS Form 3811, August 2001		7002 2030 0007 9532 7681	
Domestic Return Receipt		102595-02-M-0835	

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To: Donn K. Harms, Esq.

Fax No: (858) 509-1677

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Company: American Patent and
Trademark Law Center

Phone No: (858) 509-1400

NEW YORK

NORTHERN VIRGINIA

ORANGE COUNTY

SACRAMENTO

From: Bryan P. Collins

Phone No: 703.770.7538

SAN DIEGO

Email: bryan.collins@pillsburylaw.CO
in

Fax No: 703.905.2500

SAN DIEGO-NORTH COUNTY

SAN FRANCISCO

User No: 13065

C/M No: 82135/0000042

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May 30, 2007

Bryan P. Collins
Phone: 703.770.7538
bryan.collins@pillsburylaw.com

VIA FACSIMILE

Donn Harms, Esq.
American Patent and Trademark Law Center
12702 Via Cortina, Suite 100
Del Mar, California 92014

Re: Aurora Infringements
Our Ref.: 082135-0000042

Dear Mr. Harms:

I have still not received a substantive response to my e-mail of March 14, 2007, setting forth a royalty proposal from Fellowes, and my follow-up e-mail of March 27, 2007. On March 28th you indicated by e-mail that a response was forthcoming, but we have not heard from you since then. It has been over two months since Fellowes made its proposal, and we need an immediate response.

You should be aware that, since that time, Fellowes tried the '559 patent to a jury verdict against shredders sold by Michilin Prosperity Co. Ltd. of Taiwan and Intek America of Torrance, CA. The '559 patent was found to be infringed and valid in all respects. The switch constructions on the accused shredders in that case are the same as those Aurora shredders in all material respects, and any reasonable jury would come to the same conclusion if we were forced to litigate against Aurora. The trial also started after the Supreme Court's *KSR* decision was issued. Thus, the '559 patent was held valid under the U.S. Supreme Court's obviousness standard as set forth in that case.

We also take this opportunity to advise that Fellowes has filed the '559 patent in a number of major markets, including Europe, Canada, Japan and the People's Republic of China.

We expect a substantive and meaningful answer to this letter and Fellowes' prior royalty proposal by **June 7, 2007**. With respect to the \$50,000 lump sum Fellowes proposed for past damages, that was premised on a rapid resolution of this issue, and therefore Fellowes expects to calculate any royalty from April 1st forward or increase the lump sum component as applicable.

If we do not receive a response in advance of that date, Fellowes will assume that Aurora has no interest in seeking an amicable resolution and will proceed accordingly.

Donn Harms, Esq.
May 30, 2007
Page 2

We also take this opportunity to advise you and your client of Fellowes' U.S. Patent Publication Nos. 2006-0054724 A1 and 2006-0054725 A1. These applications also have corresponding applications filed in other major markets, such as Europe, Canada and the People's Republic of China. And there is a Japanese counterpart application that is currently pending and under examination, JP 2006075831.

It has come to Fellowes' attention that Aurora is currently marketing shredders under the name Touchguard that incorporate Fellowes' proprietary Safe Sense® technology, which is the subject matter of those patent applications. Consider this letter as formal notice of Fellowes' Safe Sense® patent applications.

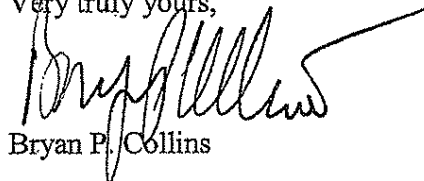
Fellowes' intellectual property is important to its business and it takes protection of that intellectual property seriously. Its Safe Sense® technology represents a significant innovation in shredder safety and a key investment in Fellowes technical and business strategy. Aurora's marketing of that technology cannot be tolerated.

If Aurora has not ceased sales of infringing shredders by the time Fellowes' patents issue, Fellowes will be in contact to discuss its right to collect retroactive pre-grant royalties and to demand cessation of such sales.

Finally, we have yet a third issue to raise with Aurora concerning a trademark infringement issue on Aurora's Touchguard shredders. The Aurora Touchguard shredders utilize a shield logo that is confusingly similar to the shield logo used on Fellowes' Safe Sense® shredders. The similarity of these logos on the same products will lead to consumer confusion as to the source of goods and cannot be tolerated by Fellowes. As such, Fellowes demands that Aurora immediately cease and desist using the shield logo on any and all Aurora shredders.

We expect a response to these other issues as well in advance of the June 7th date.

Very truly yours,

A handwritten signature in black ink, appearing to read "Bryan P. Collins", with a long, sweeping horizontal stroke extending to the right.

Bryan P. Collins

BPC/smm

Confirmation Report - Memory Send

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 To : 418585091677
 Number of pages : 003
 Start time : 05-30 04:47pm
 End time : 05-30 04:51pm
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Date: May 30, 2007

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Fax No: (858) 509-1677

Company: American Patent and Trademark Law Center

Phone No: (858) 509-1400

From: Bryan P. Collins

Phone No: 703.770.7538

Email: bryan.collins@pillsburylaw.com

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User No: 13065

C/M No: 82135/0000042

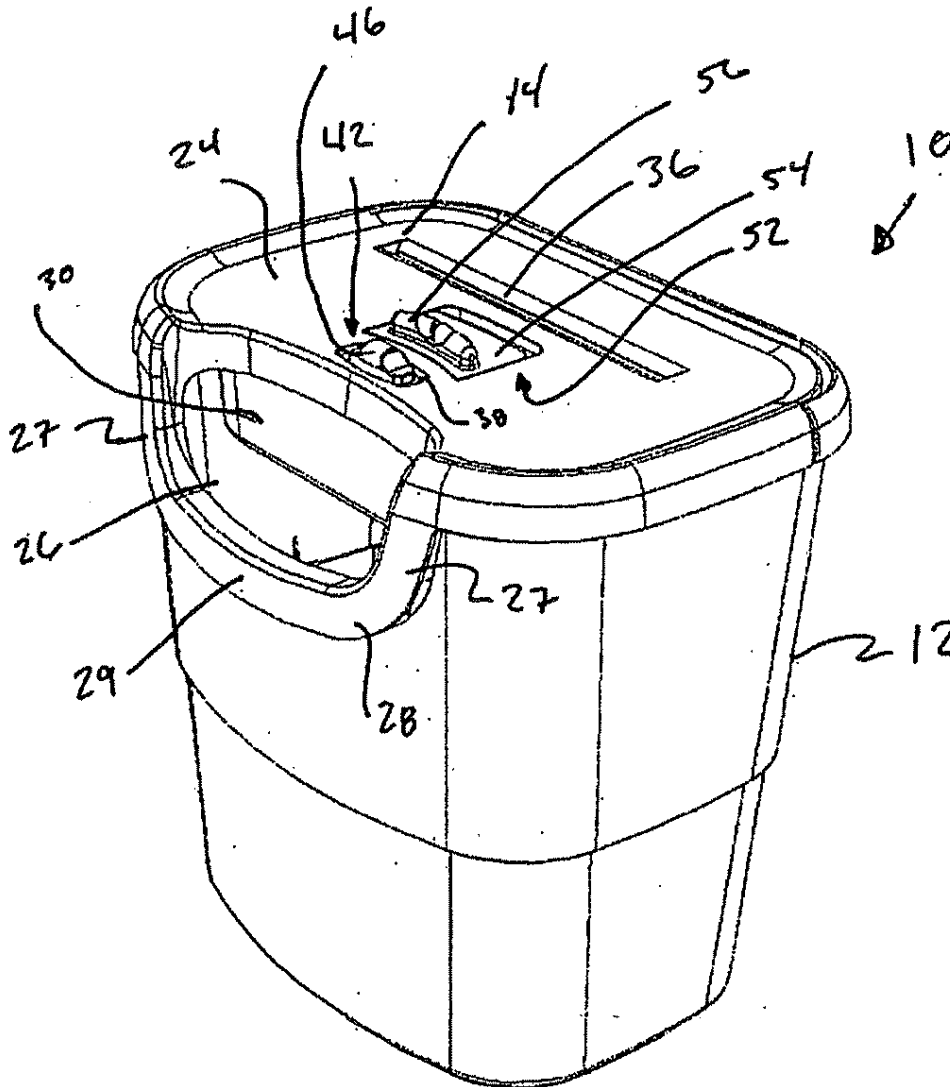
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EXHIBIT F



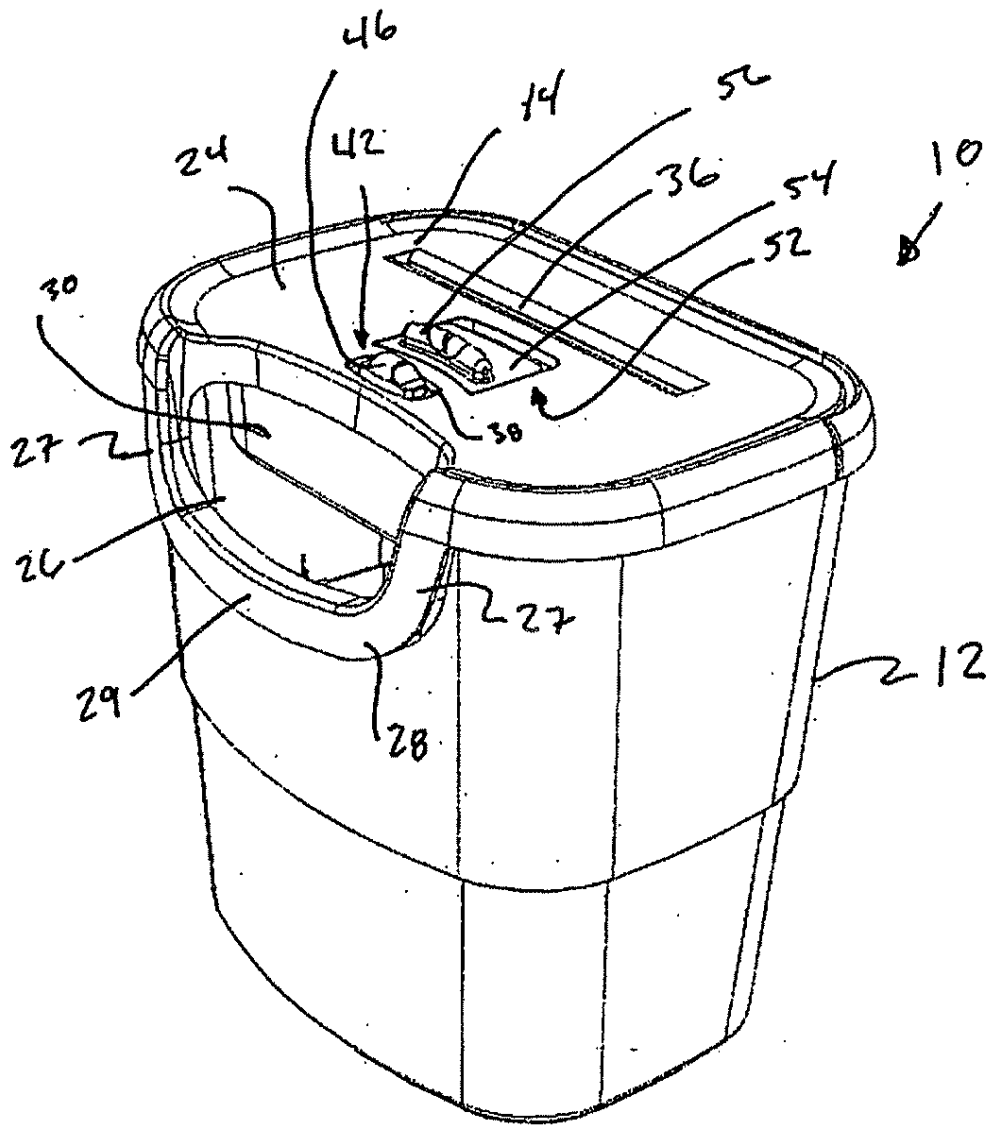


FIG. 1

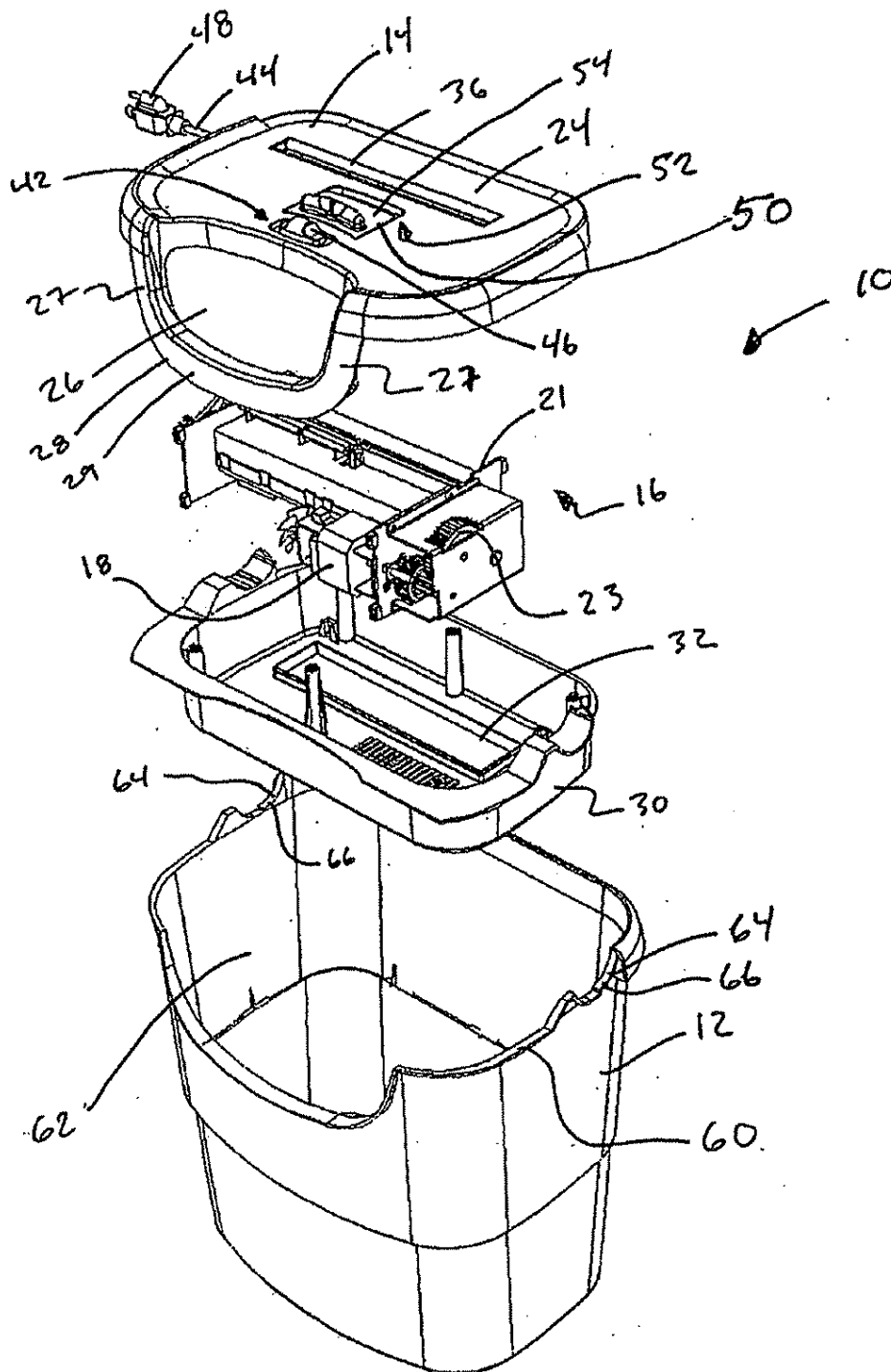


FIG. 2

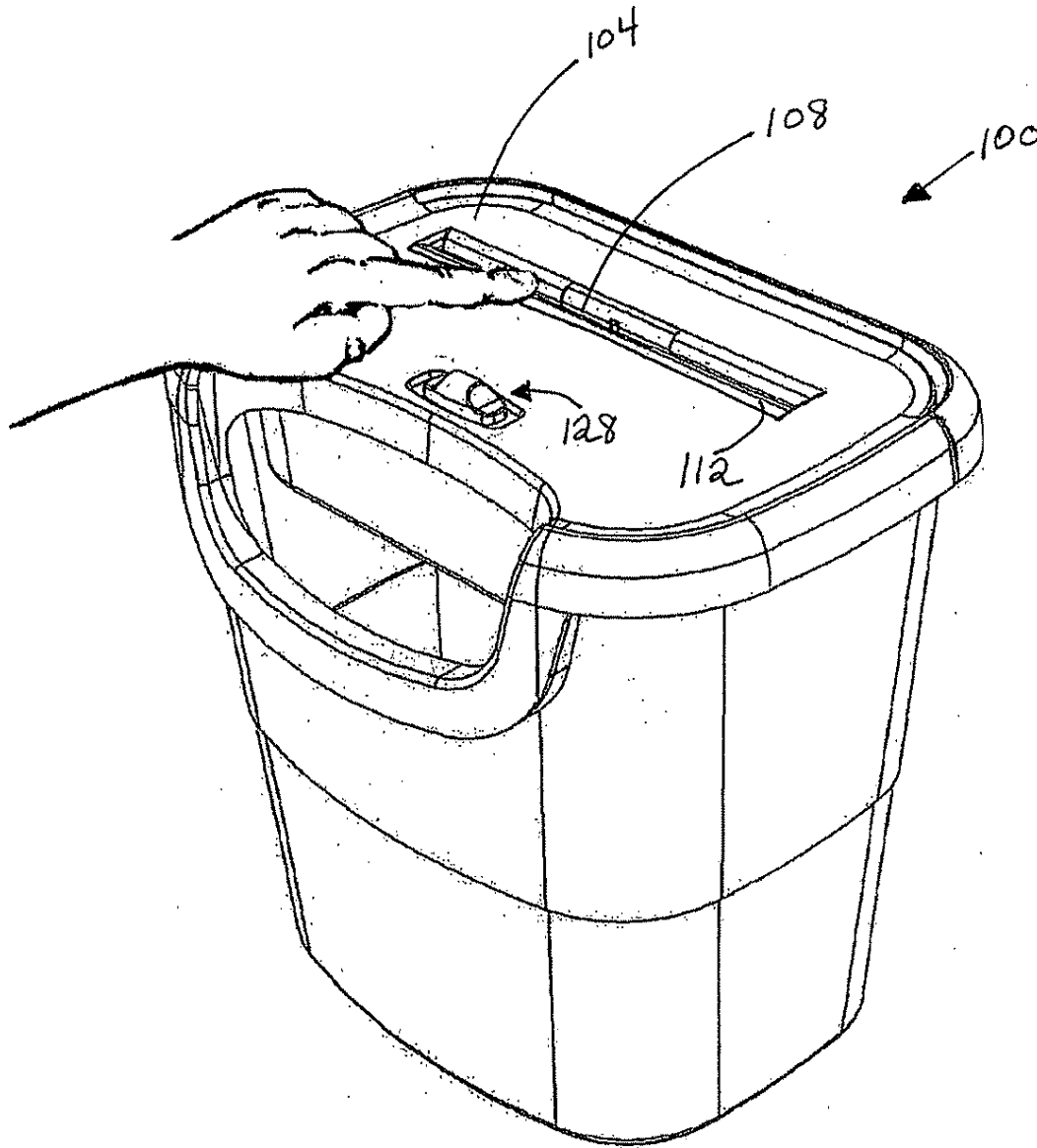


FIG. 3

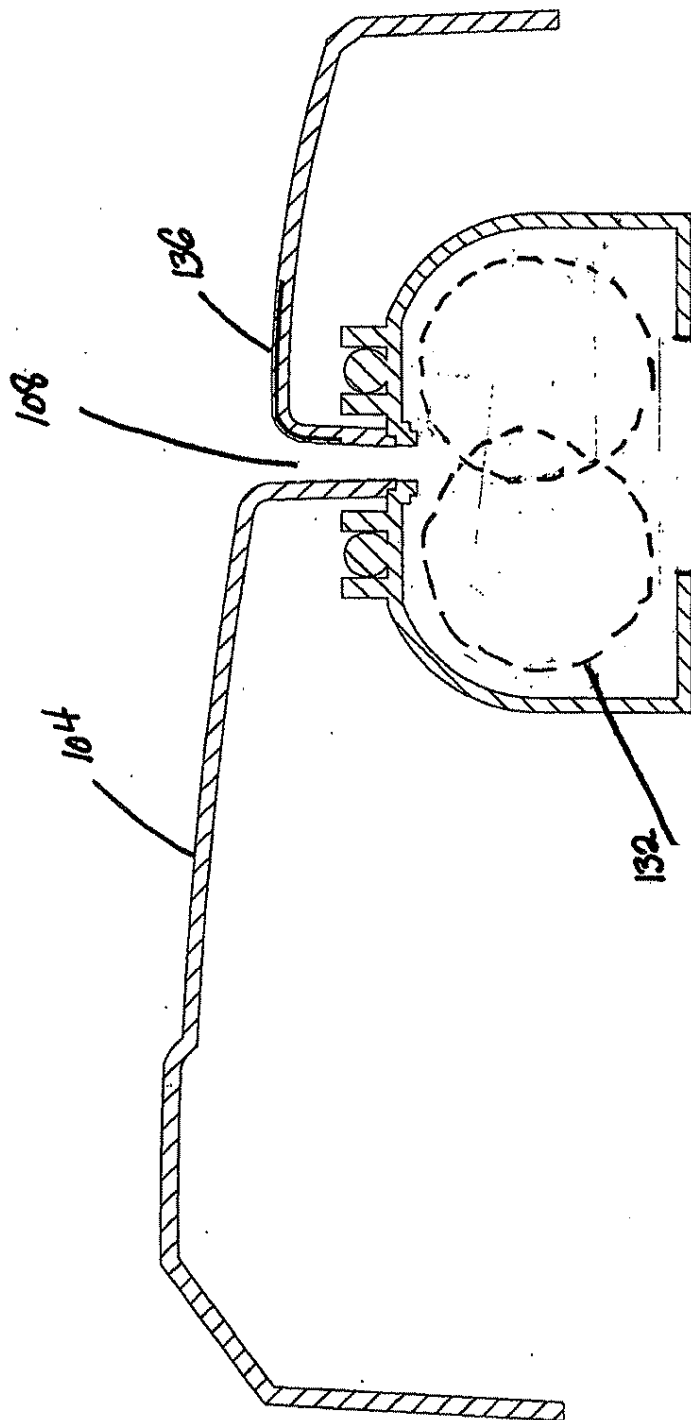


FIG. 4

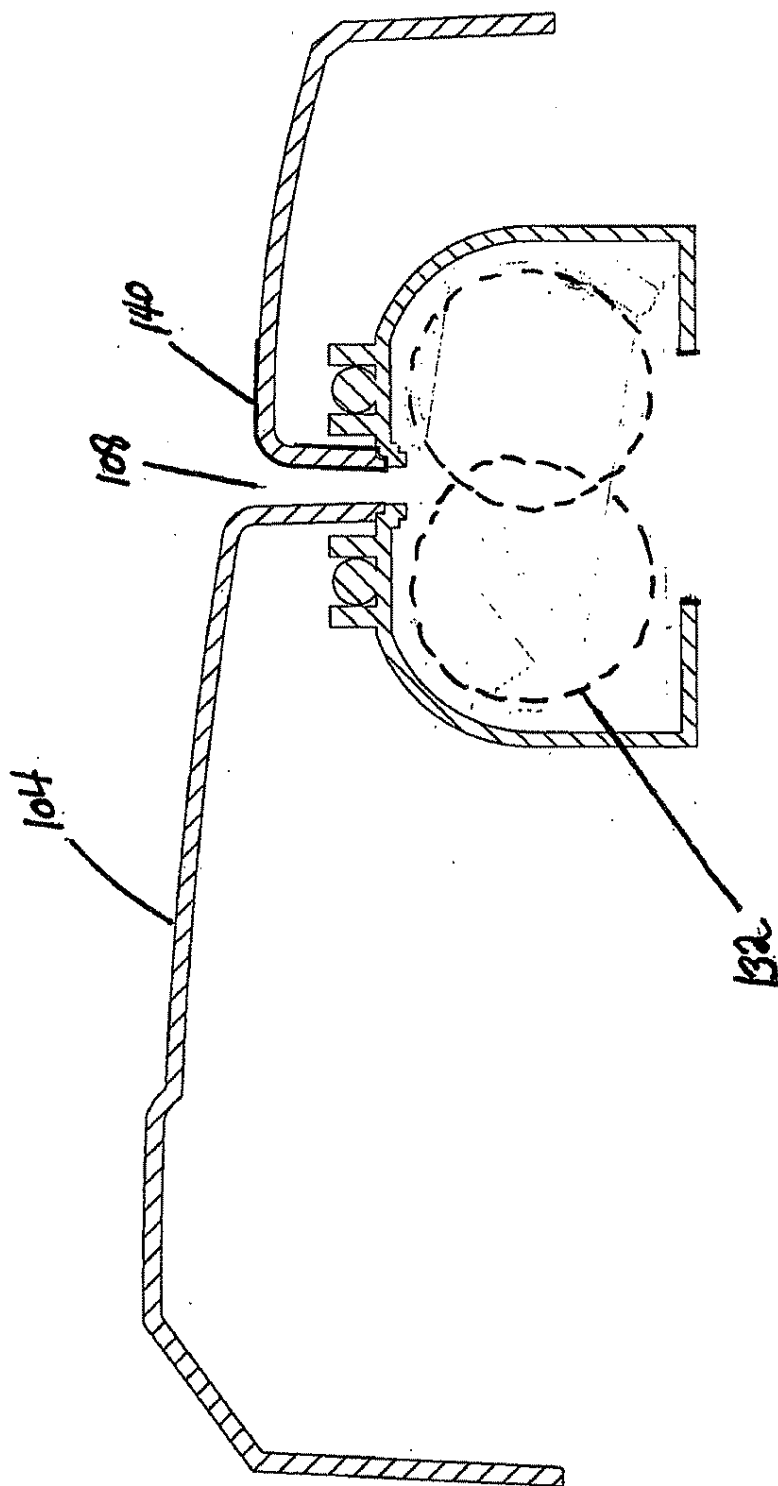


FIG. 5

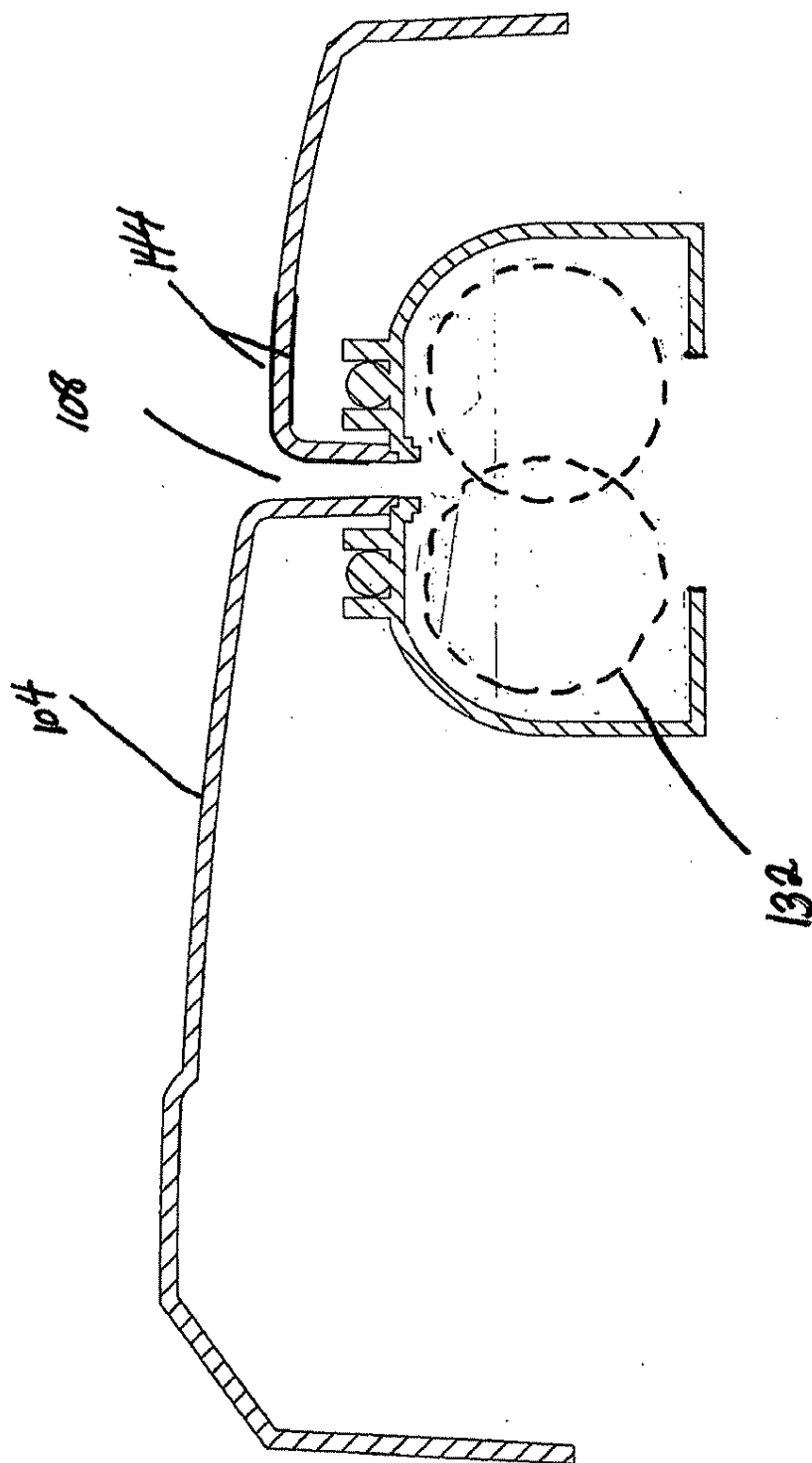


FIG. 6

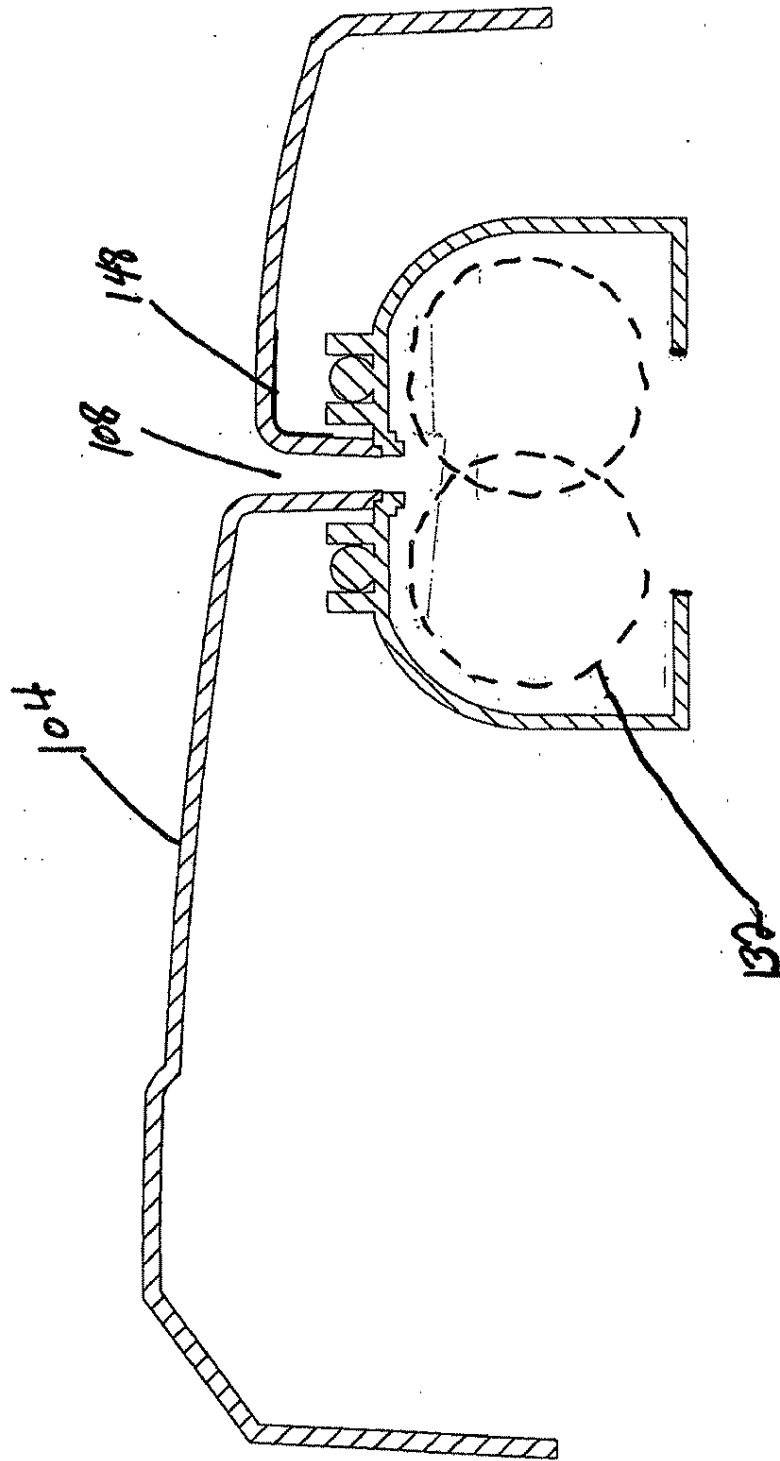


FIG. 7

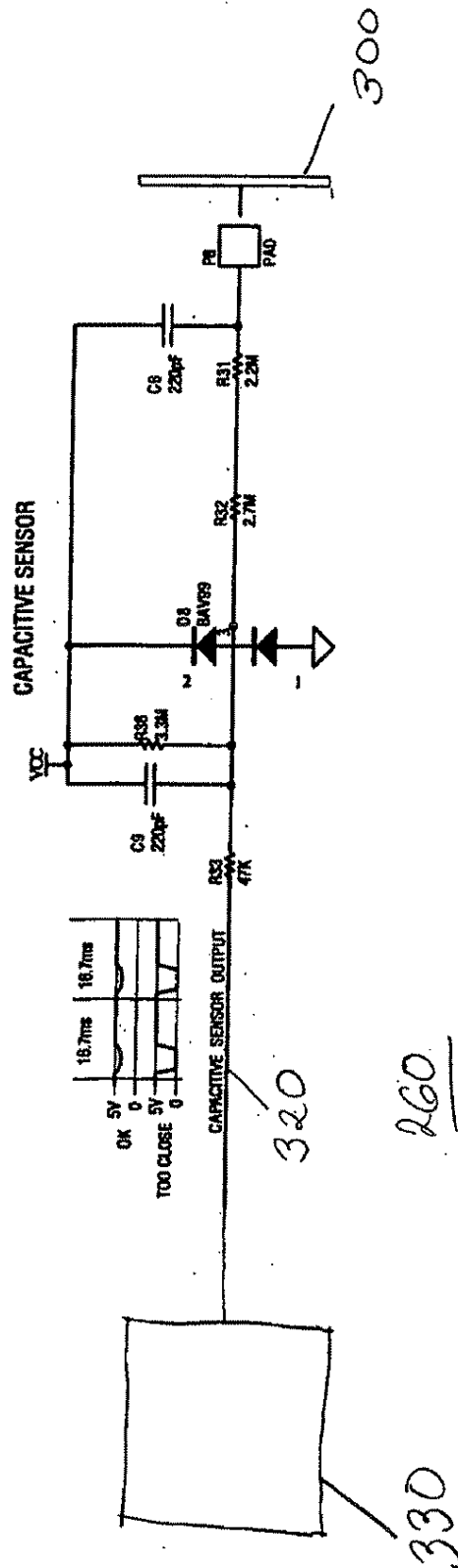
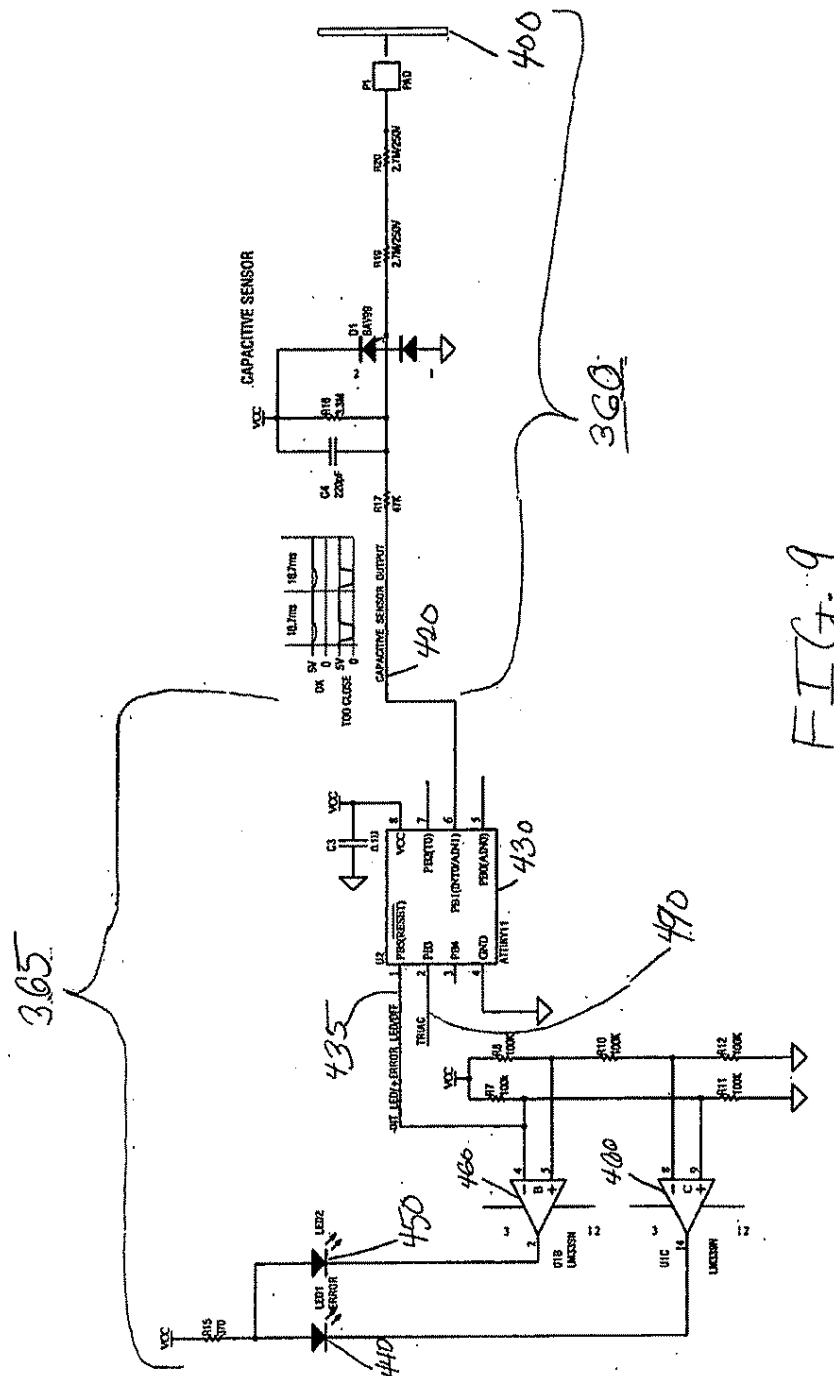


FIG. 8



US 2006/0054724 A1

Mar. 16, 2006

1

SHREDDER WITH PROXIMITY SENSING SYSTEM

FIELD OF THE INVENTION

[0001] The present invention relates to shredders for destroying articles, such as documents, CDs, etc.

BACKGROUND OF THE INVENTION

[0002] Shredders are well known devices for destroying articles, such as documents, CDs, floppy disks, etc. Typically, users purchase shredders to destroy sensitive articles, such as credit card statements with account information, documents containing company trade secrets, etc.

[0003] A common type of shredder has a shredder mechanism contained within a housing that is removably mounted atop a container. The shredder mechanism typically has a series of cutter elements that shred articles fed therein and discharge the shredded articles downwardly into the container. It is generally desirable to prevent a person's or animal's body part from contacting these cutter elements during the shredding operation.

[0004] The present invention endeavors to provide various improvements over known shredders.

SUMMARY OF THE INVENTION

[0005] One aspect of the present invention provides a shredder comprising a housing, a shredder mechanism including a motor and cutter elements, a proximity sensor, and a controller. The shredder mechanism enables articles to be shredded to be fed into the cutter elements, and the motor is operable to drive the cutter elements so that the cutter elements shred the articles fed therein.

[0006] The housing has an opening enabling articles to be fed therethrough into the cutter elements of the shredder mechanism for shredding. The proximity sensor is located adjacent the opening and configured to indicate the presence of a person or animal in proximity to the opening. The controller is operable to perform a predetermined operation (e.g., to disable the shredder mechanism) responsive to the indicated presence of the person or animal.

[0007] Another aspect of the invention provides a shredder with a proximity sensor that includes an electroconductive element and circuitry to sense a state of the electroconductive element. The proximity sensor is configured to indicate a change in the state of the electroconductive element corresponding to a change in capacitance caused by a person or animal approaching in proximity to the electroconductive element. A controller of the shredder is operable to perform a predetermined operation responsive to the indicated change in the state of the electroconductive element.

[0008] Other objects, features, and advantages of the present invention will become apparent from the following detailed description, the accompanying drawings, and the appended claims.

BRIEF DESCRIPTION OF THE DRAWINGS

[0009] FIG. 1 is a perspective view of a shredder constructed in accordance with an embodiment of the present invention;

[0010] FIG. 2 is an exploded perspective view of the shredder of FIG. 1;

[0011] FIG. 3 is a perspective view of a shredder constructed in accordance with an embodiment of the present invention;

[0012] FIGS. 4-7 are cross-sectional views each showing a shredder housing, opening, cutting elements, and conductor configuration for a sensor in accordance with various embodiments of the present invention; and

[0013] FIGS. 8 and 9 illustrate example capacitive sensor circuits according to respective embodiments of the present invention.

DETAILED DESCRIPTION OF THE ILLUSTRATED EMBODIMENTS

[0014] FIGS. 1 and 2 illustrate a shredder constructed in accordance with an embodiment of the present invention. The shredder is generally indicated at 10. The shredder 10 sits atop a waste container, generally indicated at 12, which is formed of molded plastic or any other material. The shredder 10 illustrated is designed specifically for use with the container 12, as the shredder housing 14 sits on the upper periphery of the waste container 12 in a nested relation. However, the shredder 10 may also be designed so as to sit atop a wide variety of standard waste containers, and the shredder 10 would not be sold with the container. Likewise, the shredder 10 could be part of a large freestanding housing, and a waste container would be enclosed in the housing. An access door would provide for access to and removal of the container. Generally speaking, the shredder 10 may have any suitable construction or configuration and the illustrated embodiment is not intended to be limiting in any way.

[0015] The shredder 10 includes a shredder mechanism 16 including an electrically powered motor 18 and a plurality of cutter elements (not shown). "Shredder mechanism" is a generic structural term to denote a device that shreds articles using cutter elements. Such shredding may be done in any particular way. The cutter elements are mounted on a pair of parallel rotating shafts (not shown). The motor 18 operates using electrical power to rotatably drive the shafts and the cutter elements through a conventional transmission 23 so that the cutter elements shred articles fed therein. The shredder mechanism 16 may also include a sub-frame 21 for mounting the shafts, the motor 18, and the transmission 23. The operation and construction of such a shredder mechanism 16 are well known and need not be described herein in detail. Generally, any suitable shredder mechanism 16 known in the art or developed hereafter may be used.

[0016] The shredder 10 also includes the shredder housing 14, mentioned above. The shredder housing 14 includes top wall 24 that sits atop the container 12. The top wall 14 is molded from plastic and an opening 26 is located at a front portion thereof. The opening 26 is formed in part by a downwardly depending generally U-shaped member 28. The U-shaped member 28 has a pair of spaced apart connector portions 27 on opposing sides thereof and a hand grip portion 28 extending between the connector portions 27 in spaced apart relation from the housing 14. The opening 26 allows waste to be discarded into the container 12 without being passed through the shredder mechanism 16, and the member 28 may act as a handle for carrying the shredder 10

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separate from the container 12. As an optional feature, this opening 26 may be provided with a lid, such as a pivoting lid, that opens and closes the opening 26. However, this opening in general is optional and may be omitted entirely. Moreover, the shredder housing 14 and its top wall 24 may have any suitable construction or configuration.

[0017] The shredder housing 14 also includes a bottom receptacle 30 having a bottom wall, four side walls and an open top. The shredder mechanism 16 is received therein, and the receptacle 30 is affixed to the underside of the top wall 24 by fasteners. The receptacle 30 has an opening 32 in its bottom wall through which the shredder mechanism 16 discharges shredded articles into the container 12.

[0018] The top wall 24 has a generally laterally extending opening 36 extending generally parallel and above the cutter elements. The opening 36, often referred to as a throat, enables the articles being shredded to be fed into the cutter elements. As can be appreciated, the opening 36 is relatively narrow, which is desirable for preventing overly thick items, such as large stacks of documents, from being fed into cutter elements, which could lead to jamming. The opening 36 may have any configuration.

[0019] The top wall 24 also has a switch recess 38 with an opening therethrough. An on/off switch 42 includes a switch module (not shown) mounted to the top wall 24 underneath the recess 38 by fasteners, and a manually engageable portion 46 that moves laterally within the recess 38. The switch module has a movable element (not shown) that connects to the manually engageable portion 46 through the opening 40. This enables movement of the manually engageable portion 46 to move the switch module between its states.

[0020] In the illustrated embodiment, the switch module connects the motor 18 to the power supply (not shown). Typically, the power supply will be a standard power cord 44 with a plug 48 on its end that plugs into a standard AC outlet. The switch 42 is movable between an on position and an off position by moving the portion 46 laterally within the recess 38. In the on position, contacts in the switch module are closed by movement of the manually engageable portion 46 and the movable element to enable a delivery of electrical power to the motor 18. In the off position, contacts in the switch module are opened to disable the delivery of electric power to the motor 18.

[0021] As an option, the switch 42 may also have a reverse position wherein contacts are closed to enable delivery of electrical power to operate the motor 18 in a reverse manner. This would be done by using a reversible motor and applying a current that is of a reverse polarity relative to the on position. The capability to operate the motor 18 in a reversing manner is desirable to move the cutter elements in a reversing direction for clearing jams. In the illustrated embodiment, in the off position the manually engageable portion 46 and the movable element would be located generally in the center of the recess 38, and the on and reverse positions would be on opposing lateral sides of the off position.

[0022] Generally, the construction and operation of the switch 42 for controlling the motor 42 are well known and any construction for such a switch 42 may be used.

[0023] The top cover 24 also includes another recess 50 associated with a switch lock 52. The switch lock 52

includes a manually engageable portion 54 that is movable by a user's hand and a locking portion (not shown). The manually engageable portion 54 is seated in the recess 50 and the locking portion is located beneath the top wall 24. The locking portion is integrally formed as a plastic piece with the manually engageable portion 54 and extends beneath the top wall 24 via an opening formed in the recess 50.

[0024] The switch lock 52 causes the switch 42 to move from either its on position or reverse position to its off position by a camming action as the switch lock 52 is moved from a releasing position to a locking position. In the releasing position, the locking portion is disengaged from the movable element of the switch 42, thus enabling the switch 42 to be moved between its on, off, and reverse positions. In the locking position, the movable element of the switch 42 is restrained in its off position against movement to either its on or reverse position by the locking portion of the switch lock 52.

[0025] Preferably, but not necessarily, the manually engageable portion 54 of the switch lock 52 has an upwardly extending projection 56 for facilitating movement of the switch lock 52 between the locking and releasing positions.

[0026] One advantage of the switch lock 52 is that, by holding the switch 42 in the off position, to activate the shredder mechanism 16 the switch lock 52 must first be moved to its releasing position, and then the switch 42 is moved to its on or reverse position. This reduces the likelihood of the shredder mechanism 16 being activated unintentionally.

[0027] In the illustrated embodiment, the shredder housing 14 is designed specifically for use with the container 12 and it is intended to sell them together. The upper peripheral edge 60 of the container 12 defines an upwardly facing opening 62, and provides a seat 61 on which the shredder 10 is removably mounted. The seat 61 includes a pair of pivot guides 64 provided on opposing lateral sides thereof. The pivot guides 64 include upwardly facing recesses 66 that are defined by walls extending laterally outwardly from the upper edge 60 of the container 12. The walls defining the recesses 66 are molded integrally from plastic with the container 12, but may be provided as separate structures and formed from any other material. At the bottom of each recess 66 is provided a step down or ledge providing a generally vertical engagement surface 68. This step down or ledge is created by two sections of the recesses 66 being provided with different radii.

[0028] The shredder 10 has a proximity sensor to detect the presence of a person or thing (e.g., animal or inanimate object) in proximity to the opening 36. A person or thing is "in proximity" to the opening 36 when a part thereof is outside and adjacent to the opening 36 or at least partially within the opening 36. The proximity sensor may be implemented in various ways, such as is described in further detail below. For further examples of shredders on which a proximity sensor may be used, reference may be made to U.S. patent application Ser. No. 10/828,254 (filed Apr. 21, 2004), Ser. No. 10/815,761 (filed Apr. 2, 2004), and Ser. No. 10/347,700 (filed Jan. 22, 2003), each of which is hereby incorporated into the present application by reference. Generally, the proximity sensor may be used with any type of shredder, and the examples identified herein are not intended to be limiting.

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[0029] FIG. 3 is a perspective view of a shredder 100 constructed in accordance with an embodiment of the present invention. The shredder 100 incorporates a capacitive sensor. The illustrated capacitive sensor is a switch that detects the presence of a person or thing without requiring physical contact. The capacitive sensor includes a conductor/contact plate 112 connected to a circuit, such as those shown in FIGS. 8 and 9. The conductor 112 serves as the first plate of a capacitor, while the person or thing to be detected serves as the second plate thereof. As the distance between the conductor 112 and the person or thing decreases, the mutual capacitance therebetween increases. This increase in capacitance results in increased signal levels in the sensor, which levels can be used to detect the proximity of the person or thing.

[0030] It is to be appreciated that capacitance depends in part on the dielectric constant of the second plate of a capacitor. A higher dielectric constant translates into a larger capacitance. Therefore, the capacitive sensor of the shredder 100 can detect the proximity of a nearby animate or inanimate entity provided that its respective dielectric constant is sufficiently high. Because human beings and various animals have relatively high dielectric constants, they are detectable by the capacitive sensor. Inanimate objects with relatively high dielectric constants also are detectable. Conversely, objects with low or moderate dielectric constants, such as paper, are not detectable.

[0031] The shredder 100 includes a shredder housing 104, an opening 108, and a control switch 128 with on, off, and reverse positions. A shredder mechanism, such as the one described above, is located beneath the opening 108 so that documents can be fed into the shredder mechanism through the opening 108.

[0032] The conductor 112 can be, for example, a strip of metal, foil tape (e.g., copper tape), conductive paint, a silk-screened conductive ink pattern, or another suitable conductive material. As shown in FIG. 3, the conductor 112 is a 9-inch by 1-inch capacitive sensing strip that is affixed to the housing 104 near the opening 108. As such, when a person or thing nears the opening 108 and thus the cutter elements of the shredding mechanism of the shredder 100, the capacitance between the conductor 112 and the person or thing increases, resulting in an increase in the signal level used for detection, as will be described below. To ensure that the switch is sensitive enough to detect the person or thing through multiple sheets of paper, the conductor 112 extends into the opening 108 to increase the overall surface area of the conductor 112 and thus the amount of capacitance between the conductor 112 and the nearby person or thing. The conductor 112 optionally can be covered by non-conductive plastic, for example, thus concealing the switch from a user of the shredder 100. In addition, to increase sensitivity of the switch, such non-conductive plastic can be covered with a conductive material, such as metal foil.

[0033] Though not illustrated in FIG. 3, the shredder 100 can include a sensor light, an error light, and/or a light indicative of normal operation. The sensor light, which can be an LED, is illuminated when a person or thing is detected. The error light, which also can be an LED, is illuminated when a person or thing is detected, and optionally under other conditions (e.g., the shredder container is not properly engaged with the shredder 100, or the shredder mechanism

has become jammed). These lights, however, are not necessary, and are only optional features.

[0034] FIGS. 4-7 are cross-sectional views each showing a shredder housing 104, opening 108, cutting elements 132, and a conductor configuration for a sensor in accordance with various embodiments of the present invention. The conductor configurations can include conductor(s) of different areas to tailor the amount of capacitance and thus the signal level produced when a person or thing nears the shredder. Where multiple conductors are employed, the distance therebetween may be designed also to tailor the amount of capacitive coupling and thus the capacitance produced.

[0035] In FIG. 4, the conductor 136 comprises a conductive material embedded within the upper wall of the housing 104 beneath the upper surface partially into the opening 108. The conductor 136 also is optionally embedded in the wall defining the opening 108 and extends along it for a portion.

[0036] In FIG. 5, the conductive material of the conductor 140 covers an upper surface portion of the housing 104, extends substantially into the opening 108, and curves around a flange of the housing 104 so as to cover an inside surface portion of the housing 104. For a conductor 140 that has a noticeable amount of thickness, the top portion of the upper surface where the conductor 140 is mounted may be recessed.

[0037] The conductor 144 of FIG. 6 includes two conductive portions respectively affixed to outside and inside surface portions of the housing 104. Such use of multiple portions increases the surface area of the capacitor, as well as the capacitive coupling, capacitance, and signal level produced when a person or thing nears the conductive portions.

[0038] The conductor 148 of FIG. 7 comprises a conductive material on an inside surface portion of the housing 104. This is desirable for concealing the conductor 148 without adding the manufacturing step of embedding the conductor in a housing wall, such as is shown in FIG. 4. It is to be appreciated that the conductors of FIGS. 4-7 may be of any suitable configuration, and the examples illustrated are in no way intended to be limiting.

[0039] A conductor or conductive material such as described above in connection with FIGS. 3-7 is typically connected to circuitry on a circuit board. FIGS. 8 and 9 illustrate example capacitive sensor circuits according to respective embodiments of the present invention. The example circuits may be incorporated into the overall circuit design of a shredder, and are in no way intended to be limiting.

[0040] In FIG. 8, the capacitive sensor circuit 260 includes a conductor 300 that can have a configuration such as shown above or another suitable configuration. The conductor 300 is connected to a pad P8, which is in turn connected to circuit loops including capacitors C8 and C9, resistors R31, R32, and R36, and a high-speed double diode D8. The loops are connected to a voltage supply Vcc, circuit ground, and a resistor R33. The voltage supply Vcc is connected to the AC line voltage of the shredder, and a negative regulator can generate -5 volts for the circuit ground. The capacitive sensor output 320 may be in turn coupled as an input to a controller 330, such as a micropro-

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cessor or discrete circuit components (e.g., comparators, transistors), which takes appropriate action in response to signal levels at the output 320. Such a controller 330 may also be a relay switch that opens to disable the delivery of power to an element (e.g., the motor of the shredder mechanism) and closes to enable the delivery of power. It is to be appreciated that "controller" is a generic structural term that denotes structure(s) that control one or more modules, devices, and/or circuit components.

[0041] The principles of operation of the circuit 260 will be readily understood by those conversant with the art. When a person or thing moves close to the conductor 300, the increased capacitance therebetween causes the amplitude of the sinusoidal waveform at the output 320 to increase by a voltage sufficient to indicate the presence of the person or thing. Based on the increased signal level, the controller 330 can, for example, disable the cutting elements of the shredder, illuminate a sensor or error light, and/or activate an audible alert.

[0042] FIG. 9 illustrates a capacitive sensor circuit 360, as well as control and illumination circuitry 365. The capacitive sensor circuit 360 includes a conductor 400 that can have a configuration such as shown above or another suitable configuration. The conductor 400 is connected to a pad PI, which is in turn connected to series resistors R19 and R20. The resistor R19 is connected to circuit loops including a capacitor C4, a resistor R16, and a high-speed double diode D1. The loops are connected to a voltage supply Vcc, circuit ground, and a resistor R17. The voltage supply Vcc is connected to the AC line voltage of the shredder, and a negative regulator can generate -5 volts for the circuit ground. The capacitive sensor output 420 is coupled as an input to a controller 430, which can be, for example, a simple analog circuit or an ATtiny11 8-bit microcontroller offered by Atmel Corporation (San Jose, Calif.).

[0043] The principles of operation of the circuitry of FIG. 9 will be readily understood by those conversant with the art. When a person or thing moves close to the conductor 400, the increased capacitance therebetween causes the amplitude of the sinusoidal waveform at the output 420 to increase by a voltage sufficient to indicate the presence of the person or thing. Based on the increased signal level, the controller 430 sends appropriate control signals. For example, the controller 430 sends a control signal 490 to cut off power (such as supplied by a triac) to the motor that drives the cutting elements of the shredder, and a control signal 435 to illuminate a sensor LED 450 or error LED 440 coupled to comparators 460.

[0044] Embodiments of the present invention may be incorporated, for instance, in a shredder such as the PS80C-2 shredder of Fellowes, Inc. (Itasca, Ill.). If desired, existing shredder designs may be adapted, without major modification of existing modules, to incorporate proximity sensing circuitry.

[0045] In another embodiment of the invention, a shredder can provide two or more sensitivity settings for proximity sensing. The settings can be selectably enabled by a user and tailored to detect, e.g., infants or pets. In an example embodiment employing a capacitive sensor, objects are distinguished based on load times. A smaller capacitive load results in a shorter load time than a large capacitance. Thus, by measuring (e.g., with a microprocessor) differences in

load times resulting from capacitive loads near a sensor, various objects can be distinguished.

[0046] Although various illustrated embodiments herein employ capacitive sensors, it is to be noted that other approaches may be employed to detect the presence of a person or thing near a shredder, such as, for example, approaches utilizing eddy current, inductive, photoelectric, ultrasonic, Hall effect, or infrared proximity sensor technologies.

[0047] The foregoing illustrated embodiments have been provided to illustrate the structural and functional principles of the present invention and are not intended to be limiting. To the contrary, the present invention is intended to encompass all modifications, alterations and substitutions within the spirit and scope of the appended claims.

What is claimed is:

1. A shredder comprising:

a housing;

a shredder mechanism received in the housing and including an electrically powered motor and cutter elements, the shredder mechanism enabling articles to be shredded to be fed into the cutter elements and the motor being operable to drive the cutter elements so that the cutter elements shred the articles fed therein;

the housing having an opening enabling articles to be fed therethrough into the cutter elements of the shredder mechanism for shredding;

a proximity sensor at least in part located adjacent the opening and configured to indicate the presence of a person or animal in proximity to the opening; and

a controller operable to perform a predetermined operation responsive to the indicated presence of the person or animal.

2. A shredder according to claim 1, wherein the predetermined operation is disabling the shredder mechanism responsive to the indicated presence of the person or animal.

3. A shredder according to claim 1, wherein the predetermined operation is illuminating an indicator responsive to the indicated presence of the person or animal.

4. A shredder according to claim 1, wherein the controller comprises a microcontroller.

5. A shredder according to claim 1, wherein the proximity sensor is a capacitive sensor.

6. A shredder according to claim 5, wherein:

the proximity sensor includes an electroconductive element located adjacent the opening and circuitry to sense a state of the electroconductive element, the proximity sensor being configured to indicate a change in the state of the electroconductive element corresponding to a change in capacitance caused by a person or animal approaching in proximity to the electroconductive element, and

the controller is operable to perform the predetermined operation responsive to the indicated change in the state of the electroconductive element.

7. A shredder according to claim 6, wherein the electroconductive element is a thin metal member extending along a portion of the housing adjacent the opening.

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8. A shredder according to claim 7, wherein the metal member is provided on an interior surface of the housing.

9. A shredder according to claim 8, wherein the metal member is provided only on an interior surface of the housing, and not on an exterior surface.

10. A shredder according to claim 8, wherein the metal member is also provided on an exterior surface of the housing.

11. A shredder according to claim 10, wherein the portion of the housing on which the metal member is provided has an edge that defines part of the opening, and wherein the metal member extends from the interior surface of the housing to the exterior surface over the edge.

12. A shredder according to claim 7, wherein the shredder mechanism is embedded within the housing.

13. A shredder according to claim 7, wherein the metal member is at least in part adhered to the portion of the housing adjacent the opening.

14. A shredder according to claim 13, wherein the metal member comprises metal tape.

15. A shredder according to claim 7, wherein the metal member is at least in part covered by a non-conductive member.

16. A shredder according to claim 15, wherein the non-conductive member is at least in part covered by a conductive member.

17. A shredder according to claim 6, wherein the electroconductive element at least in part comprises metal paint applied to a portion of the housing or to a member associated with the housing.

18. A shredder according to claim 6, wherein the electroconductive element includes at least two metal members each extending along a portion of the housing adjacent the opening.

19. A shredder according to claim 1, wherein the controller at least in part comprises a microprocessor.

20. A shredder according to claim 1, wherein the controller at least in part comprises discrete circuit components.

21. A shredder according to claim 1, wherein the controller at least in part comprises an analog circuit.

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